

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)
)
Advanced Television Systems and Their)
Impact Upon the Existing Television)
Broadcast Service)

MM Docket No. 87-268

To: The Commission

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REPLY COMMENTS OF APPLE COMPUTER, INC.

Apple Computer, Inc. ("Apple") hereby responds to certain of the comments submitted in response to the Fourth Further Notice of Proposed Rulemaking and Third Notice of Inquiry (the "Notice") in the above-captioned proceeding.

Many of the comments echoed Apple's belief that a successful transition to advanced television ("ATV") will depend on two essential underpinnings of spectrum and cost efficiency. First, the transition must be achieved in a spectrum-efficient manner, in that it must occur promptly and result in a timely recovery of broadcasters' NTSC spectrum.¹ Second, the transition must be cost-efficient, particularly for consumers,² in that it should allow consumers, broadcasters, program producers, and others to employ fully the potential benefits of digital technology.³

Stated another way, this very costly upgrade must do more than merely deliver prettier pictures — it must expand the definition of what constitutes

¹ E.g., Comments of the Digital HDTV Grand Alliance ("Grand Alliance Comments") at 1 (spectrum recapture is a "fundamental goal"); Comments of the Association for Maximum Service Television, Inc. ("MSTV Comments") at i; Comments of the Association of Public-Safety Communications Officials-International, Inc. at 2; Comments of Motorola at 2; Comments of National Broadcasting Company, Inc. ("NBC Comments") at 3; Comments of Thomson Consumer Electronics at 1, 2; Comments of Zenith Electronics Corporation at 2.

² E.g., Comments of the National Consumers League ("NCL Comments") at 2 (the primary beneficiary of digital television and HDTV should be the consumer, not be the TV station owners or set manufacturers, and consumers should enjoy the best digital video services and programming that is technically available).

³ E.g., Grand Alliance Comments at 2-3 ; NBC Comments at 3.

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“television,” integrating broadcasting into the national information infrastructure (“NII”). The transition to digital technology should transform television it into a new path for delivering an array of information, education, and entertainment resources to schools and households across the country.⁴

While the comments expressed support for these basic objectives and, in many cases urged the Commission to decide matters raised by the Notice based on an assumption that these objectives will be achieved, they generally did not assess critically whether the current ATV transition plan — and, in particular, the current ACATS technical standard — is consistent with these objectives. Unfortunately, it is not.

The transition to ATV will occur promptly and will provide benefits that justify the costs of the transition only if the ATV standard promotes, or at least permits, the integration of television and computing technologies.⁵ Indeed, according to Joseph A. Flaherty of CBS, interoperability between television and other digital systems of the NII is the reason why the transition to ATV is necessary.⁶

An inadequate standard will make it more difficult and costly — and in some cases even impossible — to offer services that combine the intelligence and interactivity of computing with the entertainment value of television.⁷ This, in turn, will undermine the development of a full range of ATV products and services. As a result, an inadequate standard will dampen consumers’ interest in moving to ATV, delay the transition to ATV and the recovery of broadcasters’ NTSC spectrum, and limit the benefits that could have been realized from this transition.

⁴ See NCL Comments at 3; Grand Alliance Comments at 3.

⁵ See Comments of the Information Technology Industry Council (“ITI Comments”) at 2 (“if ATV is to be an integral part of the NII and GII, it must be fully interoperable with the computer and information technology industries”).

⁶ Testimony of Joseph A. Flaherty, Senior Vice President — Technology, CBS Inc. at 2.

⁷ Integrated broadcast/computing services could be offered as part of the broadcaster’s free, over-the-air service and need not constitute ancillary or complimentary services for which a fee is charged. Thus, in discussing the importance of making it technically possible to provide integrated services, Apple is not advocating the use of ATV spectrum for ancillary uses.

While ACATS has attempted, in certain respects, to support computer-television interoperability, the current ACATS standards does not yet achieve this crucial goal — despite assertions by the Grand Alliance and others to the contrary. As Microsoft stated:

“[S]ome of the Commission’s proposals seem based on the assumption that the Grand Alliance Standards will be workable and will aid compatibility with computers, thereby supporting the National Information Infrastructure (“NII”). That is a significant overstatement....

“[While the ACATS standard] has some positive attributes, it will not, in its present form, advance the goal of compatibility. Indeed, several of the proposed specifications put forward by ACATS will obstruct compatibility with the computer industry, and should be explored carefully before they are implemented).”⁸

The changes that must be made to the ACATS standard are relatively few and can be made with little delay, but they are absolutely essential.⁹ If the Commission fails to make them, it will lock into place an inadequate standard — most likely, for a generation or more — and will lose the opportunity to create an additional, ubiquitous path to the NII.¹⁰ In addition, it will relegate broadcasters and consumers to an inferior, artificially constricted medium that is incapable of merging images and information to create new services that entertain, inform, and educate.

While the Commission formally will consider the ATV technical standard in a subsequent phase of this proceeding, it is essential that it understand at this phase of the proceeding the far-reaching effects that the ATV standard will have on the speed and success of the transition to ATV.

⁸ Comments of Microsoft Corporation at 2, 4; see also Microsoft Comments at 3 (“Microsoft takes issue with the ... assumption” that “the Grand Alliance standard will promote compatibility”); ITI Comments at 2-3.

⁹ For a discussion of the changes that are required to the ACATS standard, see Apple Comments; Microsoft Comments at 4-5; ITI Comments at 2-3, 7.

¹⁰ By limiting the scope of new services that can be supported, an inadequate ATV standard also will harm broadcasters — especially small market broadcasters — by limiting the potential advertising and other revenues that could have been realized through the creation of new programming and other services and expanded advertising media. Cf. Grand Alliance Comments at 15.

The desire to move forward quickly should not overshadow the need to make this irreversible decision in a manner that takes full advantage of the benefits that computer technology can bring to the medium of consumer television.¹¹ The ATV transition should be made promptly, but not precipitously.

Respectfully submitted,

APPLE COMPUTER, INC.

A handwritten signature in dark ink, appearing to read "James M. Burger". The signature is written in a cursive, flowing style and is positioned above the printed name.

James M. Burger
Senior Director, Government Affairs
APPLE COMPUTER, INC.
1667 K Street, N.W.
Suite 410
Washington, D.C. 20006
(202) 466-7080

Of Counsel:

Mary Dent
GOLDBERG, GODLES, WIENER & WRIGHT
1229 Nineteenth Street, N.W.
Washington, D.C. 20036
(202) 429-4900

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¹¹ Cf. Comments of Tele-Communications, Inc. at 23 (discussing dangers of premature standards settings).

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Reply Comments of Apple Computer, Inc., was sent by first-class mail, postage prepaid, this 22nd day of January, 1996, to each of the following:

- * Chairman Reed Hundt
Federal Communications Commission
1919 M Street, N.W., Room 814
Washington, D.C. 20554
- * Hon. James Quello
Federal Communications Commission
1919 M Street, N.W., Room 802
Washington, D.C. 20554
- * Hon. Andrew C. Barrett
Federal Communications Commission
1919 M Street, N.W., Room 826
Washington, D.C. 20554
- * Hon. Susan Paula Ness
Federal Communications Commission
1919 M Street, N.W., Room 832
Washington, D.C. 20554
- * Hon. Rachelle B. Chong
Federal Communications Commission
1919 M Street, N.W., Room 844
Washington, D.C. 20554
- * Mr. Robert M. Pepper
Chief
Office of Plans & Policy
Federal Communications Commission
1919 M Street, N.W., Room 822
Washington, D.C. 20554
- * Mr. Saul Shapiro
Office of Plans & Policy
Federal Communications Commission
1919 M Street, N.W., Room 314
Washington, D.C. 20554

James R. Rand
Executive Director
Association of Public-Safety Communications
Officials-International, Inc.
2040 S. Ridgewood Ave.
South Daytona, Florida 32119

Jonathan D. Blake
Covington & Burling
1201 Pennsylvania Avenue, N.W.
Post Office Box 7566
Washington, D.C. 20044
Attorneys for Association for Maximum
Service Television, Inc.

Robert K. Graves
R. K. Graves Associates
Technology and Policy Consultants
12701 Mill Glen Court
Clifton, Virginia 22024
Digital HDTV Grand Alliance

Quincy Rodgers
Associate General Counsel
Director, Government Affairs
General Instrument Corporation
1133 21st Street, N.W., Suite 405
Washington, D.C. 20036

Fiona Branton
Director, Government Relations and Regulatory Counsel
Information Technology Industry Council
1250 Eye Street, N.W.
Suite 200
Washington, D.C. 20005

Gigi B. Sohn
Andrew Jay Schwartzman
Joseph S. Paykel
Media Access Project
2000 M Street, N.W.
Suite 400
Washington, D.C. 20036

Jack Krumholtz
Law and Corporate Affairs Department
Microsoft Corporation
Suite 600
5335 Wisconsin Avenue, N.W.
Washington, D.C. 20015

Michael D. Kennedy
Vice President and Director, Regulatory Relations
Motorola
Government Relations Office
1350 I Street, N.W.
Suite 400
Washington, D.C. 20005

Richard Cotton
Ellen Shaw Agross
National Broadcasting Company, Inc.
30 Rockefeller Plaza
New York, New York 10112

Michael H. Hammer
Willkie Farr & Gallagher
Three Lafayette Centre
1155 21st Street, N.W.
Suite 600
Washington, D.C. 20036-3384
Attorneys for Tele-Communications, Inc.

Albin F. Moschner
President and CEO
Zenith Electronics Corporation
1000 Milwaukee Avenue
Glenview, Illinois 60025



/s/ Dawn Hottinger
Dawn Hottinger

* By Hand